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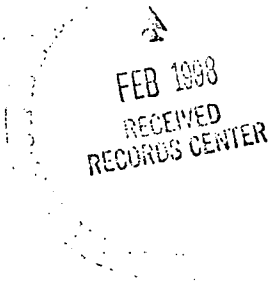
RF/RMRS-97-092

Reconnaissance Level Characterization Plan For The T120 Trailer Project

Rocky Mountain Remediation Services, L.L.C.

REVISION 0

September 1997



RECONNAISSANCE LEVEL CHARACTERIZATION PLAN FOR THE T120 TRAILER REMOVAL PROJECT

September 1997

This Reconnaissance Level Characterization Plan has been reviewed and approved by:

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RECONNAISSANCE LEVEL CHARACTERIZATION PLAN FOR THE T120 TRAILER PROJECT

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ACRONYMS

AHA	Activity Hazard Analysis
Be	Beryllium
DCI	DynaCorp of Colorado, Inc.
DOE	U. S. Department of Energy
DOP	Decommissioning Operations Plan
DQO	Data Quality Objective
EPA	U. S. Environmental Protection Agency
FY	Fiscal Year
IH&S	Industrial Hygiene & Safety
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PLM	polarized light microscopy
PU&D	Property Utilization and Disposal
RCRA	Resource Conservation and Recovery Act
RESI	Reservoirs Environmental Services, Inc.
RFETS	Rocky Flats Environmental Technology Site
RFFO	Rocky Flats Field Office
RLC	Reconnaissance Level Characterization
RLCR	Reconnaissance Level Characterization Report
RMRS	Rocky Mountain Remediation Services, L.L.C.
RWP	Radiological Work Permit

RECONNAISSANCE LEVEL CHARACTERIZATION PLAN FOR THE T120 TRAILER PROJECT

1. INTRODUCTION

The Department of Energy (DOE) has established a goal of reducing the total built square footage at the Rocky Flats Environmental Technology Site (RFETS) by 2% in Fiscal Year (FY) 97. The T120 trailer was chosen for removal as a part of the 2% reduction. This project will help RFETS management reduce operating costs and hazards.

The T120 Trailer is comprised of one prefabricated trailer located just outside the west gate of RFETS (See Figure 1-1). Trailer T120 is a portable office trailer measuring twenty (20) feet wide by sixty (60) feet in length, consisting of two modular sections, each ten (10) feet wide by sixty (60) feet long. The trailer is constructed of materials similar to those used in mobile homes. The basic construction consists of a steel frame base, wood frame, sheet metal exterior sides and roof, and drywall and plywood interior, finished with fabrics, tiles, plastics and wood. All trailers are powered by the Site electrical power distribution system. Trailer T120 has domestic water and sewer connections. No Individual Hazardous Substance Site, Areas of Concern, or Under Building Contamination have been identified with respect to the removal of the T120 Trailer.

Trailer T120 was brought to the Site in 1991 to serve as a Site badging office. The trailer continues to serve this function. No radioactive materials have been present in the trailer, and no hazardous wastes or materials were ever handled or used at this facility.

The T120 Trailer Removal Project will include removal of T120, and relocation to Property Utilization and Disposal (PU&D) for reuse at other government facilities.

1.1 PURPOSE

The purpose of this characterization plan is to outline the data requirements and methodology for characterization of T120. The characterization effort identifies the type, quantity, condition, and location of radioactive and hazardous materials which are, or may be, present as residual contamination in the subject facilities. The compilation of facility information contained herein, in conjunction with T120 project files established during this investigation, combines pertinent data from various sources to serve as a practical reference for project use during decontamination and decommissioning efforts.

1.2 SCOPE

This document was prepared using the draft Decommissioning Protocol procedure to ensure the data quality objective (DQO) process was used in determining sampling/survey requirements. The information presented in this plan specifically pertains to T120; the review of historical records and the collection of process knowledge information covering the operational time period for the facility from original installation/construction to present. The scope of this document is to gather an appropriate amount of characterization information to develop the Reconnaissance Level Characterization Report (RLCR) for the T120 Trailer Project.

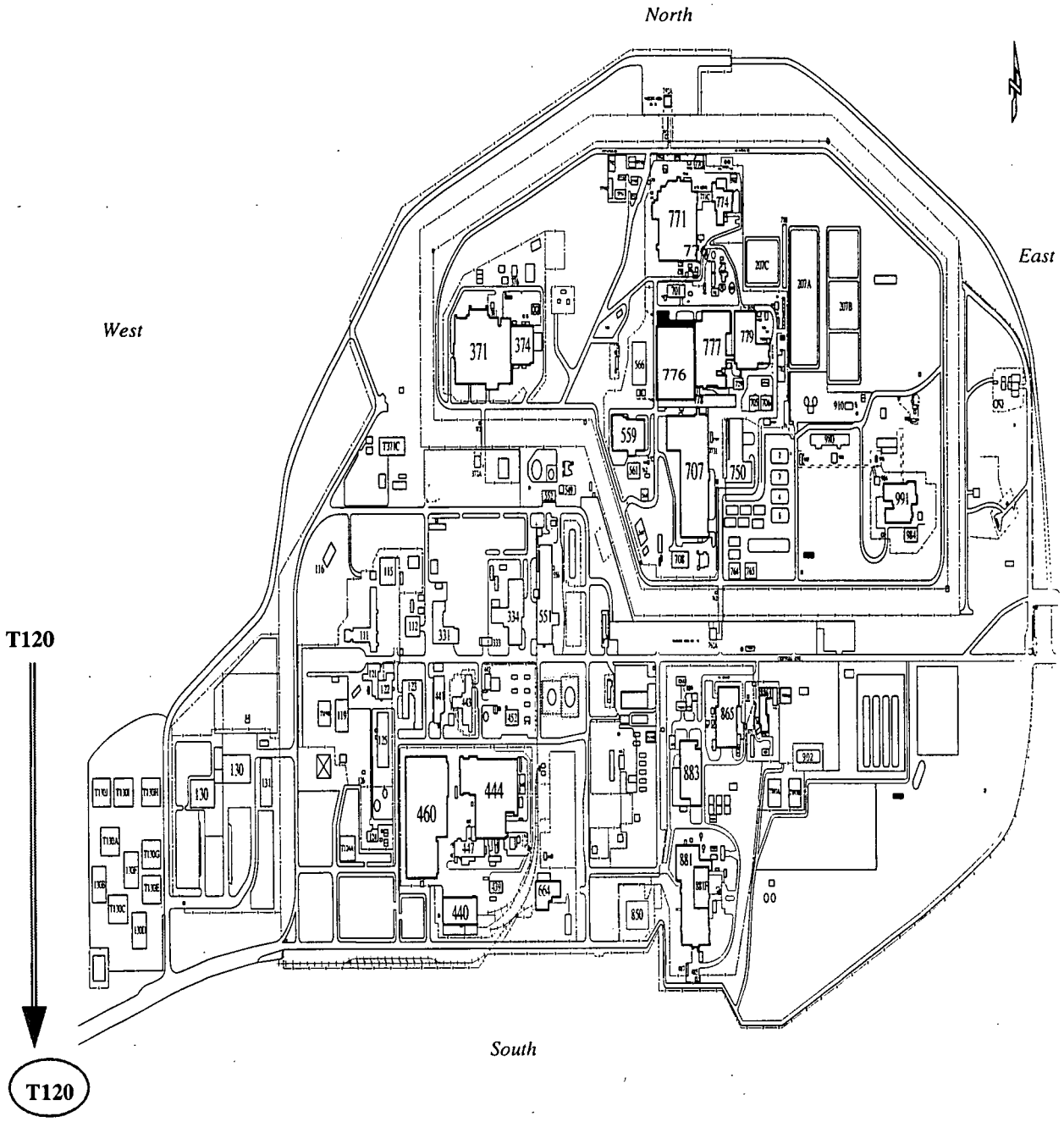

Figure 1-1 Site Map

1.3 DATA LIFE CYCLE

The data life cycle, as it applies to the characterization process, is composed of three aspects: Planning, Implementation, and Assessment. To produce a usable document (i.e., an RLCR), each of the three must be applied in sequence.

The planning process uses DQOs (See Section 2.1) to determine data needs, quality and survey design. This document is the initial planning phase for characterization activities.

The second phase of the characterization process is implementation. This phase includes the assessment of historical documentation concerning the operations of the facilities and any associated chemical or radiological inventory. Additionally, a physical survey is accomplished using the design as outlined during the planning phase.

The final phase of the life cycle is the assessment of information gathered during the implementation phase. The data is evaluated against DQO criteria and a report is developed that outlines results and conclusions.

The following section is the result of the planning process for T120.

2.0 PLANNING

To ensure the collection of usable data it is necessary to formulate the objectives of the project. For this plan, the DQO process was used by answering questions designed to follow the seven-step process for a decommissioning project. The results of this DQO process are presented in the following sections.

2.1 CHARACTERIZATION OBJECTIVES

The Reconnaissance Level Characterization (RLC) objectives are based on questions presented in the draft *Decommissioning Characterization Protocols* (DOE 1997).

This plan was developed to specify the data collection requirements necessary to provide a baseline of information for use during decommissioning activities. The information obtained by implementing this plan will be compiled into the Reconnaissance Level Characterization Report (RCLR). Ultimately, the data may be used to determine the risks to the environment and personnel during these activities (dismantling, decommissioning, etc.).

The following questions and answers were used to develop the sampling requirements for this project.

1. What is the end use of the facility or structure?

T120 will be removed and relocated to PU&D for reuse at other government agencies.

2. What types of chemical, physical/biological, or radiological hazards are being evaluated?

The following hazards were evaluated for their presence in the T120 trailer:

Asbestos
Beryllium
Excess Chemicals
Lead
PCBs
Radioactive materials

3. What level of worker protection is required to perform characterization in the facility, structure or environs?

No special protective clothing will be worn to remove the trailer contents or to complete radiation surveys. Safety shoes and safety glasses will be worn for all decommissioning activities. Other protective measures are identified in the job specific Radiological Work Permit (RWP) or Activity Hazard Analysis (AHA).

No unique or special protective clothing is required.

4. What type of instrumentation is required?

Radiological instrumentation is identified in Appendix B.

Non-radiological materials will be analyzed in a laboratory. The specific instrumentation is identified in the applicable lab procedures.

5. Have all facility structural data been reviewed?

All the available historical and facility information has been reviewed. A copy of this information is stored in the project file.

6. Have all suspect materials been identified?

Yes. Additional characterization of the suspected material is identified in this plan.

7. Do regulatory and statistical drivers exist for sampling frequency?

No known statistical drivers exist for sampling frequency for reconnaissance-level information.

8. Why is this characterization information being obtained?

The reconnaissance level characterization information is being obtained to establish a baseline of hazards for T120. The baseline information will be summarized and presented to the DOE/Rocky Flats Field Office (RFFO) in a Reconnaissance Level Characterization Report. The DOE/RFFO uses the RLCR to determine the need for a Decommissioning Operations Plan (DOP).

9. What decisions will be made from use of the data obtained for this plan?

The decision which will be made using this information is:

Is a DOP required (or not required) for the T120 trailer?

The information will also be used to identify decontamination and abatement requirements.

10. What information is required to make the decision?

A baseline of the hazard for T120 is required. The types of hazards are identified in the answer to Question #2.

11. What is the scope of this data gathering effort?

This scope of this characterization is identified within the individual hazard discussions. (Section 3).

12. What is the basis for the decision?

The decision to require a DOP is somewhat arbitrary, and is based on the perceived risk associated with the identified hazards. The decision is made by the DOE/RFFO.

13. What are the limits on decision errors?

This question does not apply to the RLC, since no specified criteria or limits exist upon which decisions are based.

14. How will the survey design be optimized?

If the DOE/RFFO decides that not enough characterization information exists (based on review of the RLCR), additional information will be requested.

3.0 IMPLEMENTATION

This section provides information necessary to implement the requirements of the planning (DQO) task of this project.

3.1 HISTORICAL ASSESSMENT

Based on the review of available historical information and discussions with past and current residents of the T120 trailer, it was determined that minimal additional sampling and surveys are required. The sampling and survey requirements are stated in the following sections.

3.1.1 Asbestos

In June 1997, the DynCorp of Colorado, Inc. (DCI) Industrial Hygiene &Safety (IH&S) Team members conducted a preliminary inspection of the T120 trailer for asbestos as a part of the site-wide assessment. As part of this reconnaissance level survey, Trailer T120 asbestos inspection, sampling and analysis data will be evaluated. All work will be conducted in accordance with the Asbestos Hazard Emergency Response Act (AHERA). Any additional asbestos samples will be submitted to Reservoirs Environmental Services, Inc. (RESI) for analysis by Polarized Light Microscopy (PLM). The follow-up survey will be completed by a certified building inspector.

3.1.2 Lead Paint

In June 1997, the DCI IH&S Team members conducted a preliminary inspection of the T120 trailer for lead in paint as a part of the site-wide assessment. As part of this reconnaissance level survey, Trailer T120 lead inspection, sampling and analysis data will be evaluated. Additional bulk paint samples will be collected and submitted to RESI for lead analysis utilizing Atomic Absorption Spectroscopy (EPA method SW846-3050A/7420). Samples will be collected from painted ceiling, door, siding, skirting, wall, and stair surfaces.

3.1.3 Beryllium (Be)

Based on a review of historical data, there is no evidence that Be was used in the T120 trailer. Therefore, no Be sampling will be required under this plan.

3.1.4 Radioactive Materials

Based on a review of historical data, the T120 trailer is not suspected to have radioactive contamination. However, prudence dictates that biased radiological surveys be conducted in accordance with specific characterization instructions defined in Appendix A.

Radiological instrumentation (portable and fixed) for making direct field measurements and laboratory analysis respectively will be utilized during characterization activities and will be implemented in final survey activities. Instrumentation that is reliable, suited to the physical conditions at the site, and capable of detecting the radiations of concern (at the required detection levels) will be chosen. Instrumentation that may be used for this project is presented in Appendix B. Additional equivalent instrumentation may be used if approved by radiological engineering.

3.1.5 Hazard Assessment

An assessment of the hazards that may be encountered during specific decommissioning activities has been performed through walkdowns and job safety analyses. This information will be incorporated into the planning process of each activity to ensure maximum protection of the worker.

3.1.6 Hazardous Waste

Currently, no hazardous waste is stored in or around T120. Hazardous product material identified during facility inspections will be removed prior to commencement of decommissioning activities.

3.1.7 Polychlorinated biphenyls (PCBs)

PCBs may be present in fluorescent light ballast, if the ballasts themselves are not labeled "Contains no PCBs." The fluorescent lights and ballast will be removed and disposed of according to RFETS procedures as required.

3.1.8 Excess Chemicals

All chemicals have been removed from the T120 trailer during the deactivation process with the exception of cleaning solvents, which will be disposed by the subcontractor. Since no known areas demonstrate a buildup of chemical residue, no special chemical characterization is anticipated.

Chemicals discovered during the decommissioning process will be handled in accordance with existing chemical identification and handling procedures. No Resource Conservation and Recovery Act (RCRA) units are associated with this project, therefore; no closure plans are required.

4.0 ASSESSMENT

The assessment stage of the T120 trailer data life cycle will include an evaluation of data and any conclusions that may be drawn from the data. The information collected will be detailed in the characterization report.

4.1 DATA EVALUATION

Data will be evaluated for completeness and adherence to the appropriate protocols.

5.0 REFERENCES

DOE/EM-0142P, *Decommissioning Handbook*

DOE, 1997 *Draft Decommissioning Characterization Protocols*, June.

MARSSIM - *Draft Multi-Agency Radiation Survey and Site Investigation Manual*

NRC, *Draft NUREG/CR5849 - Manual for Conducting Radiological Surveys in Support of License Termination.*

Appendix A

Radiological Survey Instrumentation

RADIOLOGICAL INSTRUMENTATION

Instrument	Count Type	Allowable Background Counts	Acceptable Application	MDA (dpm/100 cm^2)
Bicron w/ A100 Probe	60 sec. (alpha)	2	Direct Alpha Surveys	55
Bicron w/ B50 Probe	60 sec. (beta)	250	Direct Beta Surveys	610
NE Electra W/ DP6 Probe	60 sec. (alpha) 60 sec. (beta)	2 700	Direct Alpha Surveys Direct Beta Surveys	60 455
Eberline SAC-4	60 sec. (alpha)	1	Removable Alpha Swipes	18
Eberline BC-4	60 sec. (beta)	200	Removable Beta Swipes	205
LB-5100LW	60 sec. (alpha) 60 sec. (beta)	0.5 4	Simultaneous Removable Alpha and Beta Swipes	20 35

Attachment 1.0

Asbestos and Lead Characterization Report for the T120 Trailer

September 1997